

Applicant : Reinhard Bruch et al.  
Serial No. : 10/809,932  
Filed : March 26, 2004  
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Attorney's Docket No.: 35690-501

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REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. No new matter has been added.

35 USC § 103

Claims 1, 2, 4-10, 12-17, 19 and 22 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Rairoux et al in view of Mourou et al. These rejections are respectfully traversed. These rejections are respectfully traversed.

The allowability of claims 3, 9, and 18 is gratefully acknowledged.

In order to expedite the allowance of the current application, claim 1 has been amended to recite allowable features similar to those of previous claim 3. Claim 12 has been amended to recite allowable features similar to previous claim 18. Claim 22 has also been amended to recite allowable features similar to previous claim 18.

Accordingly, claims 1, 18, 22, and their respective dependent claims are allowable.

New claim 23 is based on previous claim 9 and, as a result, is separately allowable.

New claim 24 has features similar to that of amended claim 1 and should similarly be allowable as the cited art fails to disclose, inter alia, analyzing at least one spectral signature of the sample to determine its constituents using at least two spectrometers coupled to the at least two photomultipliers, and characterizing the constituents of the sample based on the analyzed spectral signature. As claim 3 was indicated as being allowable, this claim is also allowable.

New claim 25 is based on previous claim 9 and, as a result, is separately allowable.

New claim 26 recites a radiation source configured to emit laser radiation through a portion of the atmosphere and to generate a conducting plasma channel, an optical unit configured to

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receive light backscattered from the portion of the atmosphere, and a detection and analysis unit coupled to the optical unit for analyzing a spectral signature of the portion of the atmosphere, the detection and analysis unit comprising an infrared spectrometer to measure a differential absorption in the portion of the atmosphere and an ultraviolet spectrometer for measuring absorption or fluorescence of the portion of the atmosphere (for support, see, *inter alia*, FIG. 1).

The cited references fail to disclose a radiation source that emits laser radiation through a portion of the atmosphere in order to generate a conducting plasma channel. Moreover, the cited art fails to additionally disclose a detection and analysis unit that includes both an infrared spectrometer and an ultraviolet spectrometer as recited in the claim.

Accordingly, claim 26 is also allowable.

#### Concluding Comments

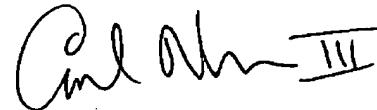
It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Please change the attorney reference number to: Attorney's Docket No.: 35690-501. The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 35690-501.

Respectfully submitted,



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Carl A. Kukkonen, III  
Reg. No. 42,773

Date: February 6, 2007

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
9255 Towne Centre Drive, Suite 600  
San Diego, CA 92121  
**Customer No. 64046**  
Tel.: (858) 320-3035  
Fax: (858) 320-3001

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